

DERWENT-ACC-NO: 1980-37437C

DERWENT-WEEK: 198021

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TITLE: Semiconductor capacitor with high dielectric constant -  
is prep'd. from a dielectric ceramic comprising barium titanate, lanthanum oxide and zirconium oxide and contg. manganese oxide

PATENT-ASSIGNEE: NICHICON CAPACITOR LTD [NICJ]

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PATENT-FAMILY:

PUB-NO	PAGES	PUB-DATE	MAIN-IPC	
LANGUAGE				
JP 55050615 A 000	N/A	April 12, 1980		N/A
JP 87030482 B 000	N/A	July 2, 1987		N/A

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ABSTRACTED-PUB-NO: JP 55050615A

BASIC-ABSTRACT:

The dielectric ceramic consists essentially of a ternary solid soln. and further contains 0.01-0.3 wt.% MnO. The solid soln. consists of 87.0-99.2 mol % BaTiO<sub>3</sub>, 0.3-3.0 mol % La<sub>2</sub>O<sub>3</sub> and 0.5-10 mol % ZrO<sub>2</sub>. The ceramic is reduced to form a ceramic semiconductor. It has a dielectric constant of 3000-16000 and high breakdown voltage.

In an example, BaTiO<sub>3</sub>, ZrO<sub>2</sub> and La<sub>2</sub>O<sub>3</sub> powders are mixed with polyvinyl alcohol and pressed at 1000 Kg/cm<sup>2</sup> to form a disc.

The latter is sintered at 1300 degrees C for 2 hrs. to form a dielectric ceramic disc. The disc is heated at 800 degrees C for an hr. in a reducing atmosphere to form the semiconductor disc. Ag paste is coated on the disc, and the paste is sintered at 800 degrees C for 30 mins. in air to form the capacitor.

DERWENT-CLASS: L03

CPI-CODES: L02-G07D; L03-B03;